

ABSTRACT

Topic: A cross sectional study on the relationship between posed smile width and lower facial height in Tamil Nadu population.

Objective: The present study is intended to add a new parameter that would be useful in orthodontic clinical evaluation, treatment planning, and determination of vertical dimension (at occlusion).

Materials and Methods: Standardized video graphic recording of 120 subjects during posed smile was captured.. Each video was then cut into 10 photos using the free studio software. The widest commissure-to-commissure posed smile frame [posed smile width (SW)] was selected as one of 10 or more frames showing an identical smile. Lower third of the face is measured from sub nasale to soft tissue menton. Two values were then compared. Ratio between lower facial height and posed smile width was calculated.

Results: The co-relation between smiling width and Lower Facial Height was found to be statistically significant $p < 0.01$. The ratio of smiling width was calculated as 1.0721 with the $SD = 0.11$.

Conclusion: In class I subjects with pleasing appearance, normal facial proportions, normal overjet and overbite and average Frankfort mandibular angle, the lower facial height (subnasale to soft tissue menton) is equal to posed Smile Width.

Keywords: Lower Facial Height, Posed Smile Width, vertical facial proportion.